

Shepway District Council

JCT Minor Works with Council Amendments

for

**Fire Detection Equipment (Domestic) Replacement/Upgrade**

**Mittell Court – Lydd Romney Marsh TN29 9BJ**

**Prescott House – Rolfe Lane Romney Marsh TN28 8JR**

**Technical Specification**

**Version 2 – March 2017**

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# TECHNICAL REQUIREMENTS FOR FIRE ALARM UPGRADE

* 1. **General Requirements**
     1. The fire detection and alarm system will comprise of a hard wired optical Mains/battery supported smoke detector, Multi-sensor, Hush button and possibly a relay unit which will interface with the warden call speech system.
     2. The Contractor will train and instruct the Contract Administrator/ Independent Living Manager and resident in the correct use, operation and supervision of the system prior to the handing over of the project.

**2.0 Codes and Standards**

2.1 The following codes and standards shall apply to this work:

2.1.1 EN 54: Compliant to EU manufacturing standard.

BS EN 14604: 2005 Fire detection and fire alarm systems.

2.1.2 ISO9901 Quality Control or equivalent.

2.1.3 BS 5839: Pt.6 grades C Category LD2 Fire Detection and Alarm Systems for Buildings.

BS 7671: (IEE wiring regulations)

1. **Qualifications of Manufacturers**

3.1. Manufacturers of the products for the fire alarm system shall confirm compliance to the above codes and standards. The manufacturer’s instructions exceed the requirements of this document and shall be adhered to in their entirety.

3.2 The Contractor shall employ engineers who are sufficiently trained and with the competence and experience required to deliver the specified services.

**4.0 Warranty**

4.1 1 year warranty covering a 12 month defects period.

**5.0 Equipment**

5.1Detectors – Multi Sensor Detectors shall have the availability to work as fire/smoke detectors and heat detectors simultaneously and meet the requirements of grade D as defined in BS5839, Carries the CE mark to indicate performance.

5.1.1 Fixed temperature type sensor, temperature range 58oC

5.1.2 230v AC Mains power supply with Lithium rechargeable battery standby supply.

5.1.3 Minimum sound output of 85db at 3 meters

5.1.4 Interconnection capability

5.1.5 Automatic self-test feature test

5.1.6 Remote located hush switch

5.1.7 LED indicator light

* + 1. Anti tamper lock
    2. Ambient temperature range 0-40oC (32oF -104oF)
    3. Devices to be capable of ceiling mounting.
    4. Hush button

5.1.11a 3V Lithium Battery – Powered for life.

5.1.11b 10year Battery Life

5.1.11c Communication: 868.499Mhz, RadioLINK protocol.

5.1.11d Wall mounting fixing.

5.1.11e Operating Temperature of 0°C to 40°C.

5.1.11f Humidity Range: 15% to 95% relative humidity.

5.1.11g Button functions: to include test, locate and silence.

**6.0 Scope of Works**

6.1 To undertake the replacement of existing Mains/battery smoke detection devices with the addition of new Hush button facility plus any associated works within domestic flats within sheltered schemes as identified by East Kent Housing (EKH).

## 7.0 Specification of Works/Installation

**7.1 Mittell Court**

* + 1. Install detection to Part 6 LD2 to BS5839 (Fire Alarms). Replace existing with new hard wired optical battery supported smoke detection devices in accordance with the manufacturers installation instruction to the following locations within each of the flats as above to BS EN 14604:2005;

7.1.2 To flats Nos 1 to 27 with micro / small kitchens. Remove existing devices to Kitchen and Lounge and install new Multi-sensor to BS5446-:2003/BS EN 14604:2005 to be ceiling mounted, positioned not less than 300mm of the kitchen entrance lintel in the Lounge.

7.1.3 1 No. to lounge. – Ceiling mounted. Where Kitchen is large enough to contain independent Heat detector.

7.1.4 1 No. to entrance lobby (escape route). – Ceiling mounted as per manufacturer’s instructions.

7.1.5 Where currently not existing, supply and install new Relay unit to Aico Ei128r to be located at a suitable position to enable interconnection to the warden call speech unit.

**7.2 To flat number 29 with larger kitchen.**

7.2.1 Replace exiting with new hard wired battery supported heat detection devices within the kitchen of flat No 29 to BS 5446-2:2003;

7.2.2 Replace existing with new hard wired optical battery supported smoke detection devices to the following locations within each of the flats as above to BS EN 14604:2005;

7.2.3 1 No. to lounge.

7.2.4 1 No. to entrance lobby (escape route).

7.2.5 Supply and install new hush button Aico Ei450 to a suitable accessible position located near to the relay unit interface to warden call system.

7.2.6 Where currently not existing, supply and install new Relay unit to Aico Ei128r to be located at a suitable position to enable interconnection to the warden call speech unit.

* 1. **Prescott House**

7.3.1 Install detection to Part 6 LD2 to BS5839 (Fire Alarms). Replace existing with new hard wired optical battery supported smoke detection devices in accordance with the manufacturers installation instruction to the following locations within each of the flats as above to BS EN 14604:2005;

7.3.2 To flats Nos. 1 to 34 with micro / small kitchens. Remove existing devices to Kitchen and Lounge and install new Multi-sensor to BS5446-:2003/BS EN 14604:2005 to be ceiling mounted, positioned not less than 300mm of the kitchen entrance lintel in the Lounge.

7.3.3 1 No. to lounge. – Ceiling mounted. Where Kitchen is large enough to contain independent Heat detector.

7.3.4 1 No. to entrance lobby (escape route). – Ceiling mounted as per manufacturer’s instructions.

7.3.5 Where currently not existing, supply and install new Relay unit to Aico Ei128r to be located at a suitable position to enable interconnection to the warden call speech unit.

**7.4 To flat number 36 with larger kitchen.**

7.4.1 Replace exiting with new hard wired battery supported heat detection devices within the kitchen of flat No. 36 to BS 5446-2:2003;

7.4.2 Replace existing with new hard wired optical battery supported smoke detection devices to the following locations within each of the flats as above to BS EN 14604:2005;

7.4.3 1 No. to lounge as per manufacturer’s instructions.

7.4.4 1 No. to entrance lobby (escape route) as per manufacturer’s instructions

7.4.5 Supply and install new hush button Aico Ei450 to a suitable accessible position located near to the relay unit interface to warden call system.

7.4.6 Where currently not existing, supply and install new Relay unit to Aico Ei128r to be located at a suitable position to enable interconnection to the warden call speech unit.

## 8.0 Testing and Commissioning

8.1.1 After the installation is completed, the contractor will conduct house programming and operating tests. The equipment will be demonstrated to operate in accordance with the requirements of the specification and be handed over to the Contract administrator.

**9.0 Cleaning and Adjustments**

9.1.1 Remove dirt and debris. Touch up scratches to original finish.

**10.0 Equipment Removal**

10.1.1 Once the new system has been fitted and handed over to the Contract Administrator, the equipment removed is to be disposed of properly off-site by the Contractor.

**11.0** **Pricing Element**

11.1.1The Contractor is to submit a fully priced and correct copy of the Schedule of Works (Appendix B) upon which his tender is based with the Contract Administrator. All variations shall be measured and priced at the same rates as contained in the Schedule or where the rates do not apply as rates proportionate to the rates therein contained.